

REMARKS

Claims 2 to 10, 55 to 63, and 114 to 117 are pending in the present application. Claims 11 to 53 and 64 to 112 have been withdrawn from consideration and canceled without prejudice. Claims 1, 54 and 113 have been canceled without prejudice. Claims 115 to 117 have been amended. No new matter has been entered.

Claim 115 is rejected under 35 U.S.C. § 112 as being incomplete for omitting essential elements. Claims 5 to 7 and 58 to 60 stand rejected under 35 U.S.C. § 102(b) as being disclosed by “Using AutoCAD, Release 13 for Windows” (the “AutoCAD reference”).

Claims 2 to 4, 8 to 10, 55 to 57, 61 to 63 and 114 to 117 stand rejected under 35 U.S.C. § 103 as being unpatentable over the AutoCAD reference and in view of Official Notice. These rejections are respectfully traversed by the following remarks.

As to the rejection of claim 115 under 35 U.S.C. § 112 as being incomplete for omitting essential elements, Applicants have removed the “reconstructing” language that was the basis for the rejection. No narrowing of claim scope is intended. Similar amendments have been made to claims 116 and 117. Applicants respectfully submit that the rejection of claim 115 under 35 U.S.C. § 112 should be withdrawn.

As to the rejections of claims 5 to 7 and 58 to 60 as disclosed by the AutoCAD reference, in order for a claim to be anticipated under 35 U.S.C. § 102, a single prior art reference must disclose each and every element of the claim in exactly the same way. *See, e.g., Lindeman Maschinenfabrik v. Am. Hoist and Derrick*, 730 F.2d 1452, 1458 (Fed. Cir. 1984); MPEP § 2131. Applicants respectfully submit that this criteria for establishing anticipation is not met here.

Claim 5 of the present application recites:

5. A method for restoring a previous version of a three dimensional mesh model on a computer system comprising:
retrieving a stored copy of an earlier state of the three dimensional mesh model on the computer system;
retrieving an ordered list of operations on the computer system;
and
performing at least some of the operations in the ordered list of operations on the retrieved copy of the three dimensional mesh model;
wherein the ordered list of operations contains the operations which if performed in order on the earlier state of the three

dimensional mesh model would result in a current state of the three dimensional mesh model.

Claim 58 of the present application recites:

58. An article of manufacture comprising a computer-readable medium having stored thereon instructions adapted to be executed by a processor, the instructions which, when executed, define a series of steps to be used for restoring a previous version of a three dimensional mesh model, said steps comprising:

retrieving a stored copy of an earlier state of the three dimensional mesh model;

retrieving an ordered list of operations; and

performing at least some of the operations in the ordered list of operations on the retrieved copy of the three dimensional mesh model;

wherein the ordered list of operations contains the operations which if performed in order on the earlier state of the three dimensional mesh model would result in a current state of the three dimensional mesh model.

The invention of claims 5 and 58 retrieves a stored copy of a mesh model and an ordered list of operations and performs at least some of those operations on the retrieved mesh model for the purpose of “restoring a previous version of [the] three dimensional mesh model.” Thus, one possible application of the invention of claims 5 and 58 is an undo function where each retrieved operation may be applied to the retrieved copy of the mesh model until the desired “level” of undo is reached. *See also* page 8 of the specification.

In contrast, the AutoCAD reference describes a method of using a macro prepared in a spreadsheet in order to generate a *new* portion of an AutoCAD model (a section of stairs in the specific example described) not to restore a previous version or state of the model. Rather than restoring previous versions of a model, the AutoCAD reference is describing how to use “spreadsheet macro language” (which the Examiner has equated to the “ordered list of operations” of the claims) to “send commands to AutoCAD to do your bidding” and thus create *new* versions of the model.

In view of the foregoing, it is submitted that the AutoCAD reference does not anticipate claims 5 and 58. Furthermore, Official Notice does not cure the deficiencies of the AutoCAD reference (nor has the Examiner alleged that it does). Claims 6, 7, 59 and 60 depend from claims 5 and 58. Accordingly, the arguments presented above in connection

with claims 5 and 58 apply equally to claims 6, 7, 59 and 60.

As to the rejections of claims 2 to 4, 8 to 10, 55 to 57, 61 to 63 and 114 to 117 as being unpatentable over the AutoCAD reference and in view of Official Notice, in order to reject a claim for obviousness under 35 U.S.C. § 103, the prior art must teach or suggest each and every element of the claim and must also suggest combining the elements in the manner contemplated in the claim. *See, e.g., Northern Telecom, Inc. v. Datapoint Corp.*, 908 F.2d 931, 934 (Fed. Cir.), cert. denied 111 S. Ct. 296 (1990); *In re Bond*, 910 F.2d 831, 834 (Fed. Cir. 1990). Applicants respectfully submit that this criteria for establishing obviousness is not met here.

As to claims 8 to 10 and 61 to 63, these claims depend from claims 5 and 58.

Accordingly, the arguments presented above in connection with claims 5 and 58 apply equally to claims 8 to 10 and 61 to 63. Furthermore, Official Notice does not cure the deficiencies of the AutoCAD reference (nor has the Examiner alleged that it does). In view of the foregoing, it is respectfully submitted that the rejection of claims 8 to 10 and 61 to 63 under 35 U.S.C. § 103 in view of the AutoCAD reference and Official Notice should be withdrawn.

As to claims 2 to 4, 55 to 57 and 114 to 117, Applicants respectfully submit that the rejections should be withdrawn as explained below.

Claim 115 of the present application recites:

115. A method for managing a three dimensional mesh model on a computer system, comprising:
storing a copy of a first state of the three dimensional mesh model on the computer system;
performing operations on the three dimensional mesh model, wherein the three dimensional mesh model is in a second state after performing the operations;
storing a record of each of the operations in an ordered list on the computer system; and
reapplying at least some of the operations stored in the ordered list to the stored first state of the three dimensional mesh model, wherein the three dimensional mesh model is in a third state after reapplying the at least some of the operations.

Claim 116 of the present application recites:

116. An article of manufacture comprising a computer-readable medium having stored thereon instructions adapted to be executed by a processor, the instructions which, when executed, define a series of steps to be used for managing a

three dimensional mesh model, said steps comprising:
storing a copy of a first state of the three dimensional mesh model;
performing operations on the three dimensional mesh model, wherein the three dimensional mesh model is in a second state after performing the operations;
storing a record of each of the operations in an ordered list; and
reapplying at least some of the operations stored in the ordered list to the stored first state of the three dimensional mesh model, wherein the three dimensional mesh model is in a third state after reapplying the at least some of the operations.

Claim 117 of the present application recites:

117. A system for managing a three dimensional mesh model, the system comprising:
a computer module for storing a copy of a first state of the three dimensional mesh model;
a computer module for performing operations on the three dimensional mesh model, wherein the three dimensional mesh model is in a second state after performing the operations;
a computer module for storing a record of each of the operations in an ordered list; and
a computer module for *reapplying at least some of the operations stored in the ordered list to the stored first state of the three dimensional mesh model*, wherein the three dimensional mesh model is in a third state after reapplying the at least some of the operations.

Claims 115 to 117 recite, among other things, “reapplying at least some of the operations stored in the ordered list to the stored first state of the three dimensional mesh model” In contrast, the AutoCAD reference describes a method of using a macro prepared in a spreadsheet in order to generate a *new* portion of an AutoCAD model (a section of stairs in the specific example described) by using “spreadsheet macro language” to “send commands to AutoCAD to do your bidding.” The AutoCAD reference does not describe “reapplying at least some of the operations stored in the ordered list to the stored first state of the three dimensional mesh model” but rather describes performing entirely new operations on the mesh model. There is no disclosure in the AutoCAD reference of storing a first state of a mesh model, performing operations on the mesh model to reach a second state, storing an ordered list of the performed operations and then *reapplying* at least some of the operations

from the stored list on the stored first state of the mesh model.

Official Notice does not cure these deficiencies of the AutoCAD reference (nor has the Examiner alleged that it does). In view of the foregoing, it is respectfully submitted that the rejection of claims 115 to 117 under 35 U.S.C. § 103 in view of the AutoCAD reference and Official Notice should be withdrawn.

Claims 2 to 4, 55 to 57 and 114 depend from claims 115, 116 and 117. Accordingly, the arguments presented above in connection with claims 115, 116 and 117 apply equally to claims 2 to 4, 55 to 57 and 114. In view of the foregoing, it is respectfully submitted that the rejection of claims 2 to 4, 55 to 57, 114, 115, 116 and 117 under 35 U.S.C. § 103 in view of the AutoCAD reference and Official Notice should be withdrawn.

Applicants respectfully submit that all pending claims are in condition for allowance. Prompt consideration and allowance of the present application are therefore earnestly solicited.

The Office is hereby authorized to charge any additional fees or credit any overpayments under 37 C.F.R. § 1.16 or § 1.17 to Deposit Account No. 11-0600.

The Examiner is invited to contact the undersigned at (212) 425-7200 to discuss the application.

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